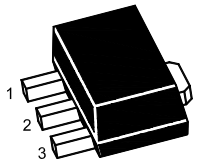
2SA1664U

PNP Epitaxial Planar Transistor

High Current Application

The transistor is subdivided into two groups, O and Y, according to its DC current gain.



1.Base 2.Collector 3.Emitter
SOT-89 Plastic Package

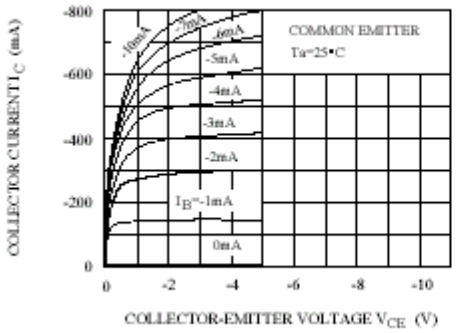
Absolute Maximum Ratings (T_a = 25℃)

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	35	V
Collector Emitter Voltage	$-V_{CEO}$	30	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	800	mA
Base Current	$-I_B$	160	mA
Collector Power Dissipation	P_{tot}	500	mW
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{Stg}	-55 to +150	℃

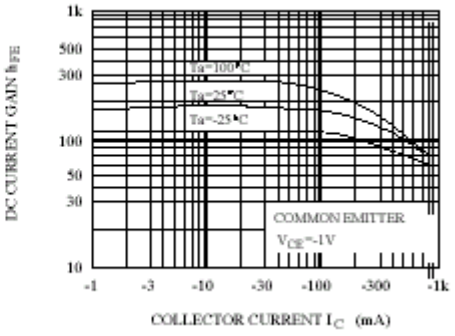
Characteristics at T_{amb} = 25℃

Parameter			Symbol	Min.	Typ.	Max.	Unit
DC Current Gain							
at $-V_{CE}$ = 1 V, $-I_C$ = 100 mA	Current Gain Group	O	h_{FE}	100	-	200	-
		Y	h_{FE}	160	-	320	-
at $-V_{CE}$ = 1 V, $-I_C$ = 700 mA			h_{FE}	35	-	-	-
Collector Cutoff Current at $-V_{CB}$ = 35 V			$-I_{CBO}$	-	-	100	nA
Emitter Cutoff Current at $-V_{EB}$ = 5 V			$-I_{EBO}$	-	-	100	nA
Collector Emitter Breakdown Voltage at $-I_C$ = 10 mA			$-V_{(BR)CEO}$	30	-	-	V
Collector Emitter Saturation Voltage at $-I_C$ = 500 mA, $-I_B$ = 20 mA			$-V_{CE(sat)}$	-	-	0.7	V
Base Emitter Voltage at $-V_{CE}$ = 1 V, $-I_C$ = 10 mA			$-V_{BE}$	0.5	-	0.8	V
Transition Frequency at $-V_{CE}$ = 5 V, $-I_C$ = 10 mA			f_T	-	120	-	MHz
Collector Output Capacitance at $-V_{CB}$ = 10 V, f = 1 MHz			C_{ob}	-	19	-	pF

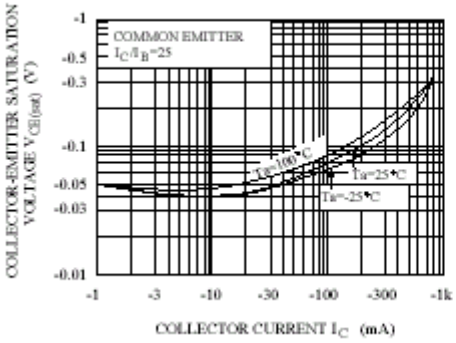
I_C - V_{CE}



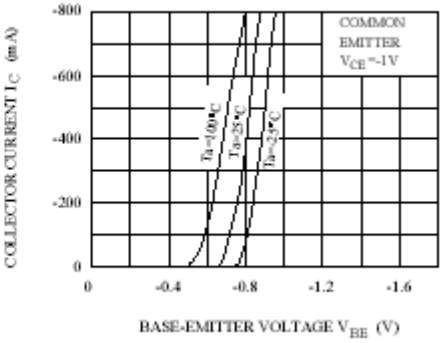
h_{FE} - I_C



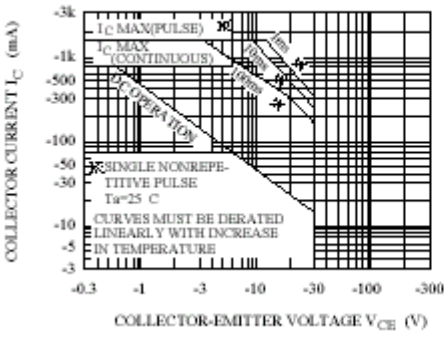
$V_{CE(sat)}$ - I_C



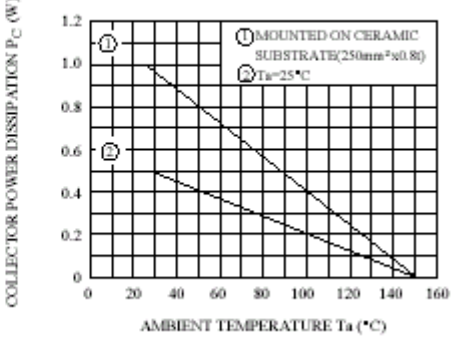
I_C - V_{BE}



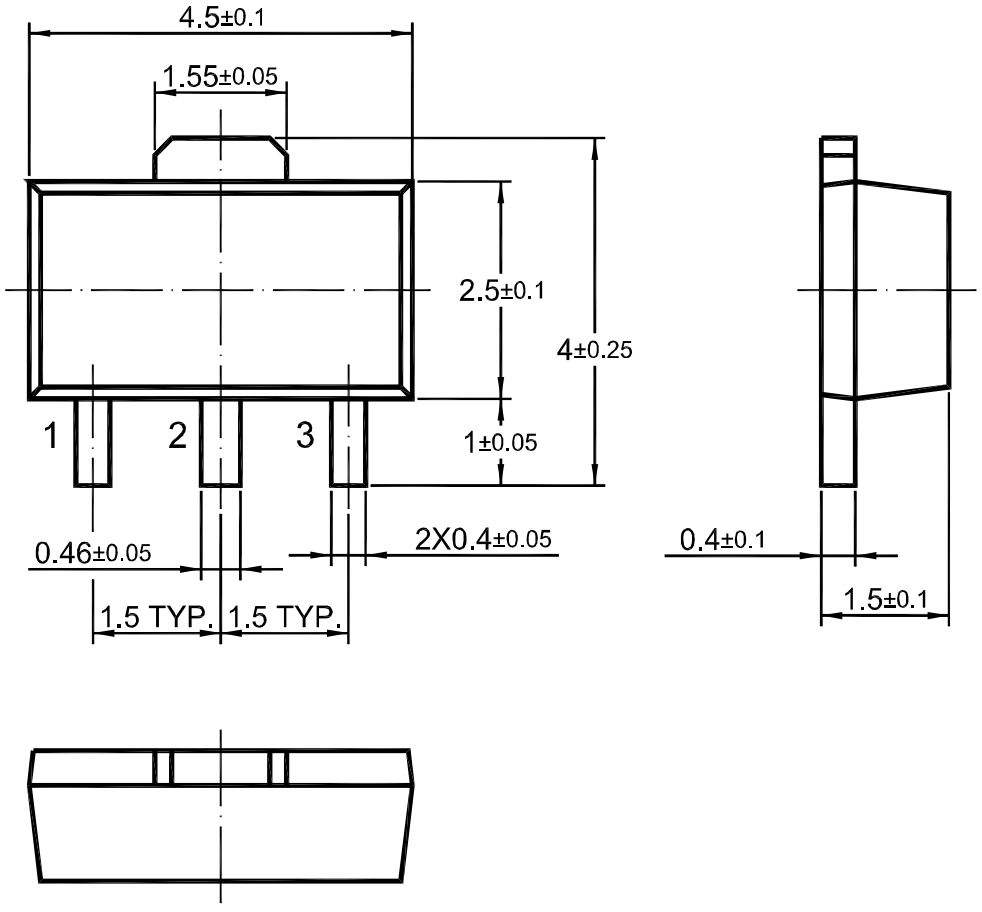
SAFE OPERATING AREA



Pc - Ta



SOT-89 PACKAGE OUTLINE



Dimensions in mm